REMARKS

Claims 1-12, 18-23, 25-26, and 30-31 are pending after this amendment.

Applicants have amended claims 1, 5, 7, and 18 in order to more particularly define the invention. The amendments were not necessitated by the claim rejections. Applicants make no admission as to the patentability or unpatentability of the originally filed claims.

Claims 13-17, 24, and 27-29 have been canceled.

The amendments and remarks presented herein are in response to the Office Action dated December 2, 2008.

On January 22, 2009, the Examiner, the Examiner's supervisor, and Applicants' representative conducted a telephone interview to discuss the pending Office Action. Applicants thank the Examiner and the Examiner's supervisor for the opportunity to discuss the rejections and to clarify the issues set forth therein.

The Examiner rejected claims 14-17 under 35 USC 102(e) as allegedly being anticipated by Burema. Claims 14-17 have been canceled.

The Examiner rejected claims 1-12, 18-23, 25-27, and 29-31 under 35 USC 103 as allegedly being unpatentable over Burema in view of Shrader. This rejection is respectfully traversed.

Claim 1, which has been amended merely to more particularly recite Applicants' invention, recites:

> "A method for determining whether a client accepts visitor identifiers, comprising the steps of:
>> a.) receiving a request for a resource, the request originating at a client;
>> b.) determining whether the request for the resource includes a visitor identifier;
>> c.) responsive to the request including a visitor identifier:
>>> obtaining data associated with the visitor identifier;
>>> determining that the client accepts visitor identifiers; and
>>> transmitting the requested resource to the client;
>> d.) responsive to the request not including a visitor identifier and responsive to the request not including an indicator that redirection has occurred:
>>> assigning a new visitor identifier;
>>> sending a redirection request with the new visitor identifier to the client, the redirection request including an indicator that redirection has occurred;
>>> responsive to the client storing the new visitor identifier, determining that the client accepts visitor identifiers;
>>> responsive to the client not storing the new visitor identifier, determining that the client does not accept visitor identifiers; and
>>> transmitting the requested resource to the client."

The claimed method determines whether a client accepts visitor identifiers. A request for a resource is received, for example at a server. The request originates at a client. A determination is made as to whether the request includes a visitor identifier. An example of such a visitor identifier is a cookie, although other types of visitor identifiers can be used. If the request includes a visitor identifier, data associated with the visitor identifier is obtained, a determination is made that the client accepts visitor identifiers, and the request is serviced by transmitting the requested resource to the client.

If the request does not include a visitor identifier, <u>and if the request does not include an indicator that redirection has already occurred</u>, a new visitor identifier is assigned and a redirection request is sent to the client along with the new visitor identifier. The indicator, if present, ensures that the method does not send a redirection request if redirection has already occurred; in this manner, the claimed method avoids an endless loop.

If the client stores the new visitor identifier, a determination is made that the client accepts visitor identifiers. If the client does not store the new visitor identifier, a determination is made that the client does not accept visitor identifiers. The request is serviced by transmitting the requested resource to the client.

Claim 1 thus recites a method wherein, if a visitor identifier is found in the request for the resource, the request can be processed without any further communications from the client. Specifically, if the request includes a visitor identifier, data is obtained, a determination is made that the client accepts visitor identifiers, and the requested resource is transmitted to the client. The method also includes an efficient mechanism for sending a redirection request in order to determine whether the client accepts visitor identifiers when the initial request does not include a visitor identifier. An indicator that redirection has occurred is included in the redirection request, so as to avoid repeated (and potentially endless) generation of new redirection requests when the client fails to return the visitor identifier in the next request.

Claim 3 recites:

"A method for determining whether a requestor accepts visitor identifiers, comprising the steps of:

  a.) receiving a request for a resource from a requestor, the requestor having an address;

  b.) determining whether the request includes a visitor identifier;

  c.) responsive to the request including a visitor identifier:

    c.1) obtaining data associated with the visitor identifier;

    c.2) determining that the requestor accepts visitor identifiers; and

    c.3) transmitting the requested resource to the requestor; and

  d.) responsive to the request not including a visitor identifier:

    d.1) determining whether the request includes an indicator that step d.3) has been performed;

    d.2) responsive to the request including the indicator that step d.3) has been performed:

    assigning a visitor identifier from the requestor's address;

    determining that the requestor does not accept visitor identifiers; and

    transmitting the requested resource to the requestor; and

    d.3) responsive to the request not including the indicator that step d.3) has been performed:

    assigning a new visitor identifier;

    sending to the requestor a redirection request including the new visitor identifier and an indicator that step d.3) has been performed, the redirection request being adapted to cause the requestor to retransmit the request for the resource; and

    repeating steps a-d."

Claim 3 recites a method wherein, if a visitor identifier is found in the request for the resource, the request can be processed without any further communications from the client. If the request does not include a visitor identifier, <u>a determination is made as to whether the request includes an indicator that step d.3 has been performed</u>, wherein step d.3 includes the assignment of a new visitor identifier and transmission of a redirection request. If the request includes an indicator that step d.3 has been performed, a determination is made that the requestor does not accept visitor identifiers; accordingly a visitor identifier is assigned from the requestor's ad-

dress. If the request does not include an indicator that step d.3), then a new visitor identifier is assigned, and a redirection request is sent, including an indicator that step d.3 has been performed. Steps a-d are then repeated.

Thus, both claims 1 and 3 specifically recite mechanisms by which an indicator is provided; the indicator specifies whether a redirection request has already been issued. In this manner, the claimed invention avoids transmitting repeated redirection requests that might constitute an endless loop. This endless-loop avoidance mechanism is a unique limitation that is not found in either of the cited references.

Burema merely teaches a tracking system server that writes a test cookie to a client to determine whether cookie writing has been disabled at the client. See, for example, paragraph [0031]. Also see paragraph [0071]: "The transaction transmittal program determines whether a user has disabled the cookie feature on his or her computer as follows... Each user having cookies enabled will have a test cookie, which was written out to the user's computer from the transaction page."

Burema fails to provide any teaching of a method wherein a redirection request is sent to the requestor, including an indicator that the step of sending a redirection request has been performed. As discussed in a previous Response, Burema does not need such a redirection request or indicator because there is no need to determine whether the request is being received for the first or second time. Therefore, Burema actually teaches away from the limitations of the claimed invention.

Furthermore, as stated previously, the portions of Burema cited by the Examiner (paragraphs [0031] and [0071-0078] and Figs. 3a-3b) fail to teach redirection in the manner claimed herein. Contrary to the Examiner's assertions, these portions of Burema do not teach any mechanism for sending to the requestor a redirection request including the new visitor identifier and an indicator that redirection has been performed. Burema's mention of "redirection" merely refers to a referral from an affiliate site to a merchant site, and is completely unrelated to the notion of sending a redirection request to cause a requestor to resubmit its resource request, as recited herein. The redirection request of the claimed invention is "adapted to cause the requestor to retransmit the request for the resource". By contrast, Burema's redirection is to a merchant site, rather than a retransmission of the resource request.

For example, paragraph [0072] of Burema states, "If the transaction file does not include tracking system information, then transaction information is matched to information recorded during the redirection to the merchant's web site." The specific description as to what is meant by the term "redirection" is found at paragraph [0011]: "The method redirects a client to a merchant site based on a selection made at an affiliate site by the client, stores information about the redirection in a database, captures, using a script executed by the client browser, transaction information regarding the transaction, receives the transaction information indicating that the client completed a transaction at the merchant site and compares the information stored in the browser of the client with the transaction information to determine whether the

affiliate referred the client to the merchant site." It is apparent from Burema's use of the term that there is no hint or suggestion of any technique for sending a redirection request to a requestor that causes a request to be retransmitted with a new visitor identifier and with an indicator that the redirection step has been performed, as claimed herein.

Shrader does nothing to cure this deficiency of Burema. Shrader merely teaches a method for enabling a user to interact with an application running on a server by constructing and returning a cookie to the browser upon a given occurrence. As part of a login process, the browser checks with the server that the cookie was set by the browser. Shrader describes a specific technique of sending the cookie from the server in a refresh page that redirects the HTTP flow back to itself with a parameter to check if the cookie was set; the server then performs a test to determine whether the cookie is valid (Abstract; also col. 2, lines 34-41; also col. 6, lines 5-26).

Nowhere in Shrader is there any mention of including <u>an indicator that the step of sending a redirection request has been performed</u>, as claimed herein. Shrader's mechanism merely provides a refresh page that redirects HTTP flow back itself; no mention is made of any flag or indicator that redirection has been performed, as claimed herein.

In the interview of January 22, 2009, the Examiner acknowledged Applicants' argument that the indicator that redirection has occurred (which is referred to herein as a "do not repeat" indicator, for ease of nomenclature but without any intention to

limit the scope of the claimed invention) is absent from the cited references. However, the Examiner asserted that the specification fails to provide sufficient description to enable the claimed limitation with respect to the "do not repeat" indicator.

On the contrary, the specification provides ample support of the "do not repeat" indicator. Specifically, paragraph [0014] states:

> "[0014] The redirection request also includes a "do not repeat" indicator along with the new visitor identifier. The "do not repeat" indicator allows the data collection server to recognize this refusal and avoid an endless loop. When the indicator is detected, the data collection server does not continue to try to send a new visitor identifier to the client, but instead creates a unique visitor identifier based on the client's address and a user-agent string. This visitor identifier is not sent to the client, but is used by the data collection server to identify the visitor when logging data related to the request. In this manner, collection of the visitor identifier and associated data continues, without disturbing the client." (Emphasis added).

Paragraphs [0044] to [0045] state:

> "[0044} However, if the visitor identifier is missing or invalid, the cookie handshake process 270 continues by determining whether a "do not repeat" indicator is present 230. If the "do not repeat" indicator is not present, then the cookie handler 130 assigns a visitor identifier, sets the "do not repeat" indicator, and sends the visitor identifier, "do not repeat" indicator and a redirection request 240 to the client 150 via the interface 110. The redirection request indicates to the client that the embedded content the client is requesting can be found at a particular location. The location specified by the cookie handler 130 is the data collection server 100 itself. This redirection request causes the client 150 to repeat the request to the data collection server, but this time including the visitor identifier.
> [0045] However, not all redirection requests will contain the visitor identifier assigned by the cookie handler. Some clients, for example, will not accept visitor identifiers and therefore will not send the visitor identifier assigned by the cookie handler. In other cases, the visitor identifiers may become corrupted or lost during transmission due to a poor connection. In these cases, in order to avoid an infinite loop in which visitor identifiers are repeatedly created and sent back to the client, the cookie handler 130 checks for the "do not repeat indicator" 230. If the "do not repeat" indicator is present, but the request does not include a visitor identifier, the cookie handler 130 recognizes that the either the client does not accept visitor identifiers, or the visitor identifier has become corrupt or lost. The cookie handler creates a visitor identifier based on the client's address 250, and collects the visitor identifier, time stamp, page identifier, and other data associated with the request 260. The client's address may include the client's address alone, or it may include the client's address in combination with a user-agent string or any other identifying data. These items

may then be stored in the repository as a normal click-stream entry occurring with a visitor identifier created by the cookie handshake process 270." (Emphasis added).

Additional support appears in Fig. 2, which specifically teaches the sending of a "do not repeat" indicator at step 240, as well as the checking for such an indicator at step 230.

These teachings in the present specification clearly set forth sufficient support for the limitations recited in the claims, and indeed provide additional descriptions as to the operation and purpose of the "do not repeat" indicator.

One skilled in the art will recognize that many different well-known mechanisms can be used for encoding an indicator, flag, parameter, or other value in a request such as an HTTP request. In particular, it is well known to encode flags and indicators in URL request strings, which can be parsed at a server in order to extract query parameters, state information, data entered in form fields, and/or client-identifying information.

For example, it is well known to encode data in a query string portion of a URL, in order to pass data to a web application. See, for example, Berners-Lee, et al., RFC 1738, Uniform Resource Locators (URL), December 1994, available at http://tools.ietf.org/html/rfc1738, and Berners-Lee, et al.; and RFC 2396, URI Generic Syntax, August 1998, available at http://tools.ietf.org/html/rfc3986 (later superseded by RFC 3986). Even in the earliest days of the World Wide Web, URL re-

quest strings were known to have a query string portion, by which information could be passed from a client to a server as part of an HTTP request.

Such techniques for encoding information in URL request strings are well known, so that one skilled in the art would recognize these techniques as being well-adapted to use herein to carry the "do not repeat" indicator. One skilled in the art reading Applicants' disclosure would recognize the need to include in a redirection request an indicator that redirection has occurred. The individual skilled in the art would recognize, upon reading the disclosure, that one possible mechanism would be to encode such an indicator in the transmitted URL redirection request, according to the above-cited RFC documents. Given the specification's explicit recitation of including a "do not repeat" indicator in a redirection request, the individual skilled in the art would not need any additional recitation to recognize that URL encoding (or any other equivalent method) could be used as a mechanism for including the indicator in the request. "Detailed procedures for making and using the invention may not be necessary if the description of the invention itself is sufficient to permit those skilled in the art to make and use the invention." MPEP 2164.

Applicants emphasize that they are not asserting that the above-cited RFC documents contain any teaching of the use of a "do not repeat" indicator encoded in a URL string. Rather, Applicants merely point out that the general mechanism for encoding data in a URL string was well known at the time the present application was filed. Accordingly, once given the information provided in Applicants' disclo-

sure, one skilled in the art would recognize the need to include an indicator that redirection has occurred, and would therefore turn to existing techniques for encoding data in a request (such as URL encoding) to implement Applicants' claimed invention.

Accordingly, even in the absence of an explicit teaching of URL encoding in the specification, Applicants respectfully submit that adequate support for the claimed invention is set forth therein, and that the invention is described in sufficient detail to enable one skilled in the art to make and use the claimed invention.

It is acknowledged, however, that other techniques for transmitting flags and indicators may exist or may be developed in the future, and that the method claimed herein is not limited to any particular mechanism for transmitting the indicator that redirection has occurred.

Accordingly, claim 1 is respectfully submitted to be patentable over Burema and Shrader, taken alone or in any combination.

Claim 11 recites a data collection server and includes limitations similar to those discussed in connection with claim 3. Claim 18 recites a computer program product including limitations similar to those discussed in connection with claim 1. Claim 19 recites a computer program product including limitations similar to those discussed in connection with claim 3. Claims 2, 4-10, 12, 20-23, 25-26, and 30-31 variously depend from claims 1, 3, 11, and 19 and incorporate the limitations discussed

above. Accordingly, claims 1-12, 18-23, 25-26, and 30-31 are hereby submitted to be patentable over Burema and Shrader, taken alone or in any combination.

Claims 13-17, 24, and 27-29 have been canceled.

Support for the claim amendments can be found in the originally filed specification at, for example, paragraphs [0042] to [0046] and Fig. 2. No new matter has been added.

On the basis of the above amendments, consideration of this application and the early allowance of all claims herein are requested.

Should the Examiner wish to discuss the above amendments and remarks, or if the Examiner believes that for any reason direct contact with Applicants' representative would help to advance the prosecution of this case to finality, the Examiner is invited to telephone the undersigned at the number given below.

Respectfully submitted,
Brett Error, et al.

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